

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P557890

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-85-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P557890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-3HI-50-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

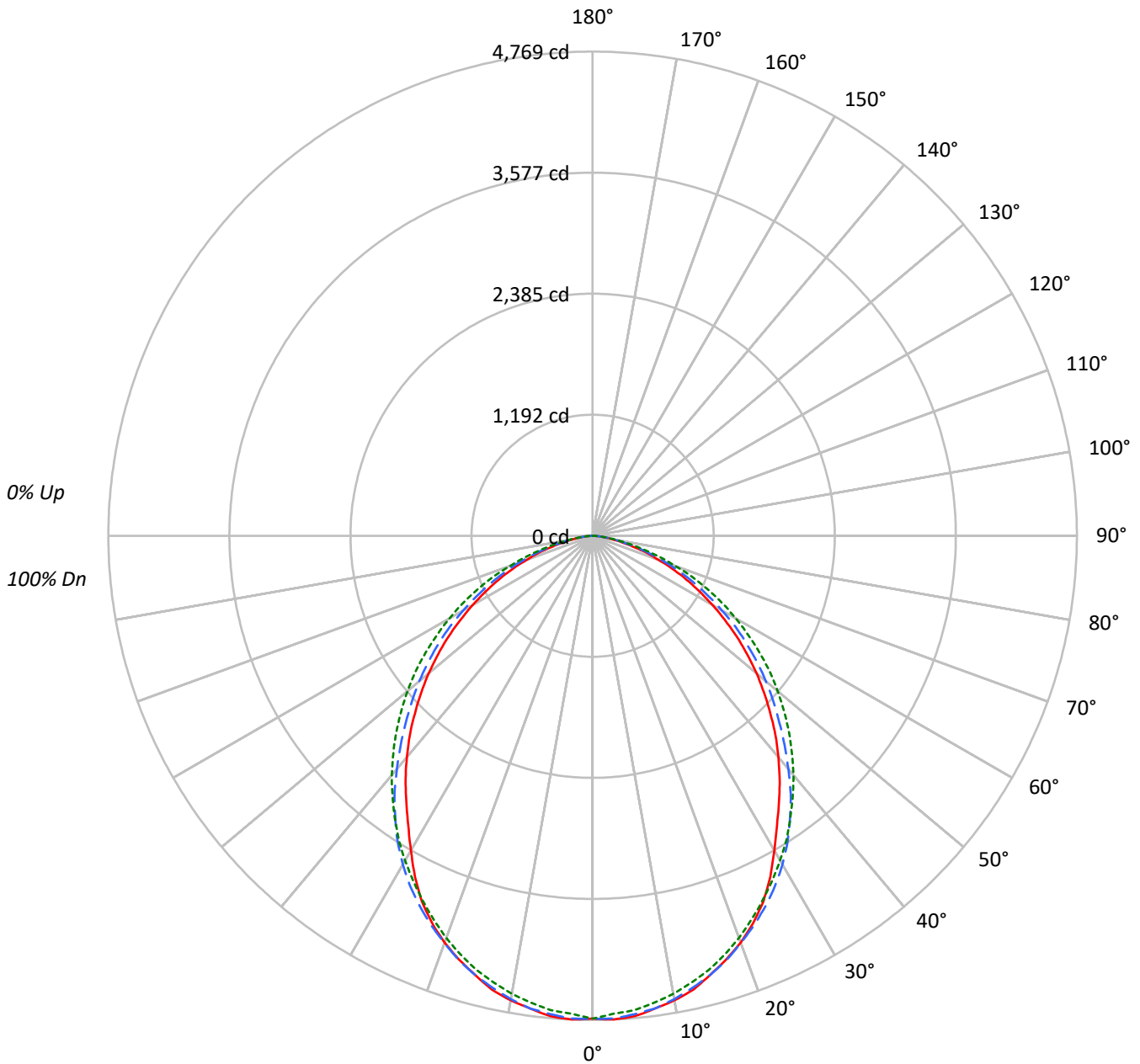
Lumens per Lamp: N/A
Luminaire Lumens: 10998.0 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12799	12799	12799
5°	12833	12779	12671
10°	12697	12662	12517
15°	12472	12472	12329
20°	12208	12224	12067
25°	11806	11952	11762
30°	11117	11617	11475
35°	10505	11135	11153
40°	9994	10533	10809
45°	9422	9895	10403
50°	8820	9325	9960
55°	8136	8676	9422
60°	7326	7916	8762
65°	6469	7039	7970
70°	5391	5995	6771
75°	4237	4788	5300
80°	3030	3369	3738
85°	1976	1976	1862



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	447.8	4.1
10°-20°	1258.1	11.4
20°-30°	1838.4	16.7
30°-40°	2086.8	19.0
40°-50°	2014.5	18.3
50°-60°	1661.8	15.1
60°-70°	1106.7	10.1
70°-80°	495.2	4.5
80°-90°	88.6	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3544.3	32.2
0°-40°	5631.2	51.2
0°-60°	9307.5	84.6
0°-90°	10998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4756	4756	4756	4756	4756	
5°	4751	4749	4731	4705	4691	450
15°	4477	4488	4477	4457	4426	1262
25°	3976	4007	4025	3996	3962	1821
35°	3198	3242	3390	3408	3395	2004
45°	2476	2518	2600	2719	2734	1910
55°	1734	1763	1849	1952	2008	1548
65°	1016	1043	1106	1184	1252	1007
75°	408	429	460	482	510	446
85°	64	64	64	60	60	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4756.4	4756.4	4756.4	4756.4	4756.4
2.5°	4769.1	4771.0	4760.0	4730.8	4712.5
5°	4750.9	4749.0	4730.8	4705.2	4690.6
7.5°	4697.9	4701.5	4696.1	4659.5	4639.4
10°	4646.7	4648.5	4633.9	4604.7	4580.9
12.5°	4580.9	4579.1	4559.0	4544.4	4506.0
15°	4476.8	4487.7	4476.8	4456.7	4425.6
17.5°	4376.3	4376.3	4383.6	4348.9	4325.1
20°	4263.0	4268.5	4268.5	4241.1	4213.7
22.5°	4131.4	4147.9	4153.4	4124.1	4091.2
25°	3976.1	4007.2	4025.4	3996.2	3961.5
27.5°	3787.9	3835.4	3890.2	3868.3	3829.9
30°	3577.8	3647.2	3738.6	3720.3	3692.9
32.5°	3378.6	3448.0	3574.1	3566.8	3552.2
35°	3197.7	3241.6	3389.6	3407.8	3395.0
37.5°	3025.9	3066.1	3205.0	3247.0	3236.1
40°	2845.0	2888.9	2998.5	3073.4	3077.1
42.5°	2666.0	2708.0	2797.5	2905.3	2905.3
45°	2475.9	2518.0	2600.2	2719.0	2733.6
47.5°	2289.6	2333.4	2413.8	2532.6	2556.3
50°	2106.8	2147.0	2227.4	2342.5	2379.1
52.5°	1916.8	1960.6	2039.2	2145.2	2198.2
55°	1734.1	1763.3	1849.2	1951.5	2008.2
57.5°	1544.0	1571.4	1668.3	1756.0	1814.5
60°	1361.3	1396.0	1470.9	1560.5	1628.1
62.5°	1185.9	1222.4	1286.4	1365.0	1441.7
65°	1016.0	1043.4	1105.5	1184.1	1251.7
67.5°	851.5	875.3	937.4	992.2	1063.5
70°	685.2	716.3	762.0	815.0	860.6
72.5°	551.8	564.6	603.0	641.4	688.9
75°	407.5	429.4	460.5	482.4	509.8
77.5°	292.4	305.2	323.4	341.7	367.3
80°	195.5	201.0	217.4	221.1	241.2
82.5°	118.8	122.4	126.1	127.9	135.2
85°	64.0	64.0	64.0	60.3	60.3
87.5°	36.5	36.5	31.1	25.6	18.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)